

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)	
)	
Calvin F. QUATE et al.)	Prior Group Art Unit: TBD
)	
Continuation of)	
Application Serial No.: 10/223,719)	Prior Examiner: Loha Ben
)	
Filed: Herewith)	Atty. Docket No.: 003848.00129
)	
For: COMPOSITIONS AND METHODS)	
INVOLVING DIRECT WRITE)	
OPTICAL LITHOGRAPHY)	

INFORMATION DISCLOSURE STATEMENT

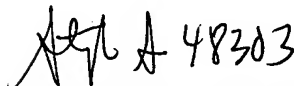
Assistant Commissioner of Patents
Washington, D.C. 20231


Sir:

Pursuant to 37 C.F.R. § 1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO-1449. All references were previously cited in the parent cases and therefore, hard copies are not included. It is respectfully requested that the information be expressly considered, and that the reference be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

No fee is believed to be due. If this is incorrect, the Commissioner is authorized to charge any outstanding charges or credit any overpayments to our Deposit Account No.

Respectfully submitted,

 A 48303

 Pamela Banner Krupka
Registration No. 33,644

BANNER & WITCOFF, LTD.
1001 G Street, N.W.
Washington, D.C. 20001
(202) 508-9100

Date: July 25, 2003

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	TBD
				Filing Date	Herewith
				First Named Inventor	Calvin F. Quate et al.
				Group Art Unit	TBD
				Examiner Name	TBD
Sheet	1	of	4	Attorney Docket Number	003848.000129

U.S. PATENT DOCUMENTS					
Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		US- 4,163,150	07-31-1979	Stankewitz	
		US- 4,662,746	05-05-1987	Hornbeck	
		US- 5,143,854	09-01-1992	Pirrung et al.	
		US- 5,318,679	06-07-1994	Nishioka	
		US- 5,384,261	01-24-1995	Winkler et al.	
		US- 5,424,186	06-13-1995	Fodor et al.	
		US- 5,445,934	08-29-1995	Fodor et al.	
		US- 5,510,270	04-23-1996	Fodor et al.	
		US- 5,517,280	05-14-1996	Quate	
		US- 5,539,567	07-23-1996	Lin et al.	
		US- 5,539,568	07-23-1996	Lin et al.	
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		US- 5,653,939	08-05-1997	Hollis et al.	
		US- 5,666,190	09-09-1997	Quate et al.	
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		US- 5,768,009	06-16-1998	Little	
		US- 5,883,705	05-16-1999	Minnie et al.	
		US- 5,835,256	11-10-1998	Huibers	

FOREIGN PATENT DOCUMENTS						
Examiner Initials *	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
		WO 97/26569	07-24-1997	Bloom et al		
		WO 99/41007	08-19-1999	Gao et al.		
		WO 99/42813	08-26-1999	Cerrina et al		
		WO 99/63385	12-09-1999	Garner		
		WO 00/13017	03-09-2000	Stahler et al		
		WO 00/47598	08-17-2000	Seo et al.		

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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Sheet	2	of	4
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[illegible][illegible]

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Sheet	3	of	4	Attorney Docket Number	003848.000129

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		BEECHER, MCGALL, and GOLDBERG: "Chemically Amplified Photolithography for Fabrication of High Density Oligonucleotide Arrays" Affymetrix, pages 597 and 598.	
		BEECHER, MCGALL, and GOLDBERG: "The Application of Photolithographic Techniques for the Fabrication of High Density Oligonucleotide Arrays" Affymetrix, 2 pages.	
		BERTSCH, LORENZ and RENAUD: "Combining Microstereolithography and Thick Resist UV Lithography for 3D Microfabrication" Swiss Federal Institute of Technology (EPFL), pages 18-23.	
		DAVIDSON, MARK, "A Microlens Direct-Write Concept for Lithography" SPIE Vol. 3048, pp. 346-355, 1997.	
		Digital Optical Chemistry, "The Digital Optical Chemistry System", taken from (http://pompos.swmed.edu:80/doc) on August 31, 1999, pages 1-8.	
		European Search Report dated December 1, 2000 corresponding to application no. 991 10362.3-1213	
		FINK and CHRISTIANSEN, Electronics Engineers Handbook, 3 rd ed., McGraw Hill, (1989), pages 11-96 and 11-99	
		KUCK, BOLLEROTT, DOLESCHAL, GEHNER, GRUNDKE, KUNZE, MELCHER, PAUFLE, SELTMANN, and ZIMMER, "New system for Fast submicron laser direct writing," SPIE, Vol. 2440, pages 506-514.	
		MCGALL, LABADIE, BROCK, WALLRAFF, NGUYEN, and HINSBERG, "Light-directed synthesis of high-density oligonucleotide arrays using semiconductor photoresists," Proc. Natl. Acad. Sci., Applied Physical Sciences, Vol. 93, November 1996, pages 13555-13560.	
		MONK, DAVID W. et al, "The Digital Micromirror Device for Projection Display" Microelectronic Engineering 27 (1995) pp. 489-493.	
		PAUFLE, KUCK, SELTMANN, DOLESCHAL, GEHNER, and ZIMMER, "High-throughput optical direct write lithography," Solid State Technology, June 1997, pages 175-182.	

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 4 of 4

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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		PEASE, SOLAS, SULLIVAN, CRONIN, HOLMES, and FODOR: "Light-generated oligonucleotide arrays for rapid DNA sequence analysis" Affymetrix, Proc. Natl. Acad. Sci. USA, vol. 91, May 1994, pages 5022-5026.	
		SELTMANN, DOLESCHAL, GEHNER, KUCK, MELCHER, PAUFLE, and ZIMMER, "New System for Fast Submicron Optical Direct Writing," Microelectronic Engineering, 30(1996), pages 123-127.	
		Silicon Light Machines, "The Grating Light Valve Technology," taken from (www.siliconlight.com/framespresspressbottom.html) April 27, 1997, page 1.	
		Silicon Light Machines, "Recent Press Releases, Silicon Light Machines Spearheads Development of Next Generation Display Technology, Company Addresses Need for higher Resolution Displays in Emerging Market Applications," taken from (www.siliconlight.com/framespresspressbottom.html), April 2, 1997, pages 1-3.	
		SINGH-GASSON, GREEN, YUE, NELSON, BLATTNER, SUSSMAN, and CERRINA: "Maskless fabrication of light-directed oligonucleotide microarrays using a digital micromirror array", Nature Biotechnology, vol. 17, October 1999, pages 974-978.	
		SMITH, Modern Optical Engineering, McGraw Hill, (1990), page 152.	
		WALLRAFF, LABADIE, BROCK, DIPIETRO, NGUYEN, HUYNH, HINSBERG, and MCGALL: "DNA sequencing on a chip" Chemtech, February 1997, pages 22-32.	
		YODER, "The State of the Art in Projection Display: An Introduction to the Digital Light Processing (DLP) Technology," Texas Instruments, taken from (www.ti.com/dlp/docs/papers/state.html), April 1997.	

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